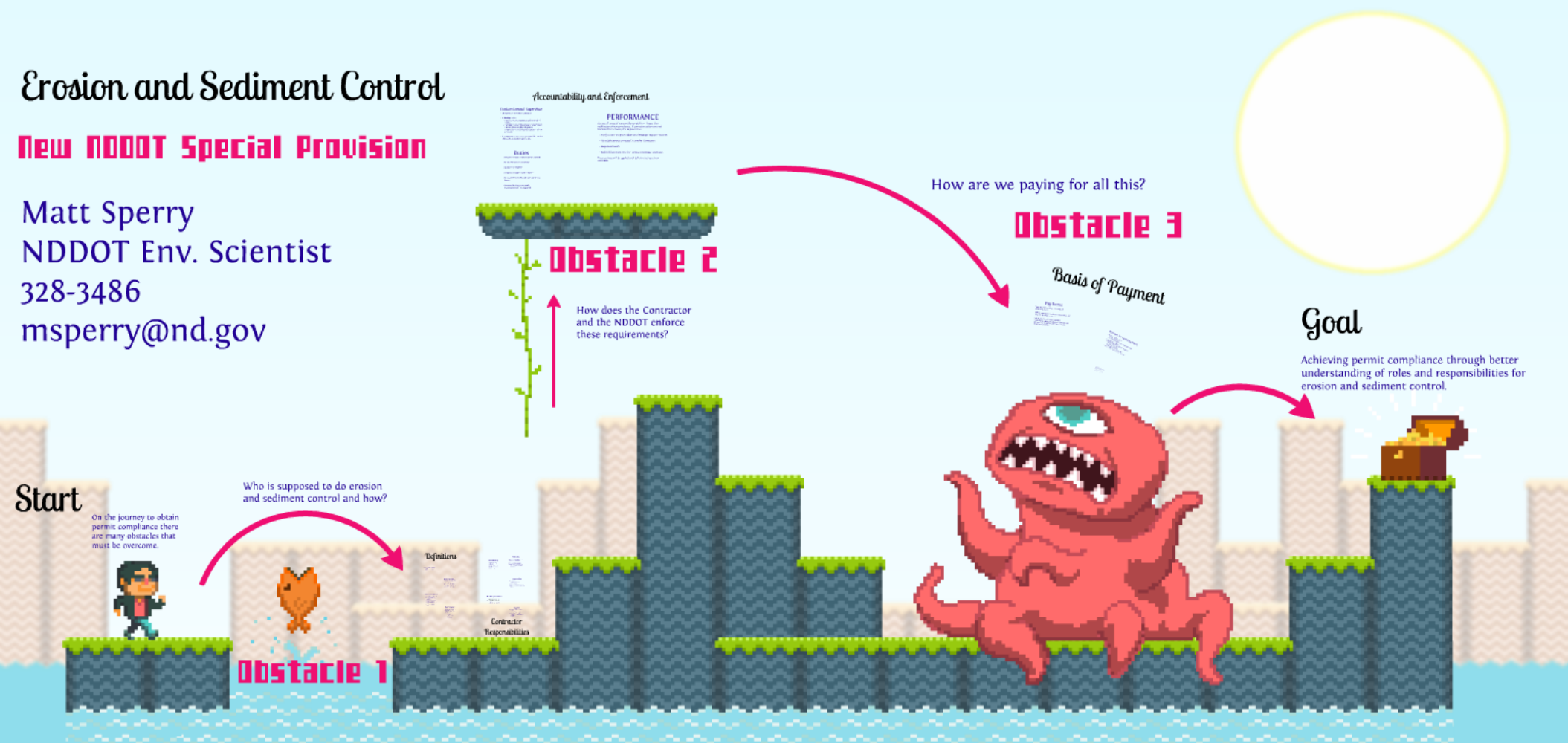


Erosion and Sediment Control

New NDDOT Special Provision

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Start

On the journey to obtain permit compliance there are many obstacles that must be overcome.

Who is supposed to do erosion and sediment control and how?

Obstacle 1

Definitions
Contractor Responsibilities

Obstacle 2

How does the Contractor and the NDDOT enforce these requirements?

Accountability and Enforcement
PERFORMANCE
Duration

Obstacle 3

How are we paying for all this?

Basis of Payment

Goal

Achieving permit compliance through better understanding of roles and responsibilities for erosion and sediment control.

Start

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and s

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Who is supposed to do erosion and sediment control and how?

On the journey to obtain permit compliance there are many obstacles that must be overcome.



Obstacle 1

Definitions

Best Management Practice (BMP)
A practice that is designed to prevent or reduce the discharge of pollutants from a point source into navigable waters.

Construction Disturbance Area
The area of land that is disturbed by construction activities, including the area of land that is cleared, graded, or otherwise altered.

Nonpoint Pollution
Pollution that is caused by runoff from impervious surfaces, such as roads, roofs, and parking lots.

Maintainance
The process of keeping a system in good working order.

Permit
A document that authorizes a person or organization to engage in a specific activity.

Inspections
The process of checking to see if something is in compliance with a standard or requirement.

Best Management Practice

Preventive Controls

Contractor Responsibilities

SWPPP

SWPPP

SWPPP

SWPPP

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Definitions

Best Management Practices

Temporary BMPs
• Erosion control measures
• Sediment control
• Pollution prevention measures
• Other measures

Permanent BMPs
• Erosion control measures
• Sediment control
• Pollution prevention measures
• Other measures

Stormwater Pollution Prevention Plan (SWPPP)

- The document that
 - Identifies potential sources of pollution
 - ensures practices are used to reduce pollutants in runoff.

Contractor Controlled Areas

- Areas not included in the contract, but are obtained and solely controlled by the Contractor
 - Batch plants
 - Concrete washout areas
 - Equipment staging yards
 - Material storage areas
 - Excavated material disposal areas
 - Contractor furnished borrow areas

Maintenance

- Any action taken to keep a BMP in working condition.
 - Not just removing sediment
 - Repairing failures of the BMP itself.

Noncompliance

- Any action or measure that violates the regulations
 - Erosion, Sediment, Pollution, Other contract documents
- Failure of a BMP after the necessary control measures
 - Erosion, Sediment, Pollution, Other contract documents
 - The violation is discharge

Best Management Practices

Temporary BMPs

- Installed and maintained before and during
- Removed when permanent are installed.

Permanent BMPS

- Installed and maintained once the project is completed.

Temporary BMPs

- Installed and maintained before and during
- Removed when permanent are installed.

Permanent BMPS

- Installed and maintained once the project is completed.

May be the same!

- May consist of identical BMPs.
- Temporary BMPs may be used as the permanent BMPs if they meet the following criteria:
 - The BMP was installed correctly,
 - Is in a functional condition,
 - Has had all accumulated sediment removed.

Stormwater Pollution Prevention Plan (SWPPP)

- The document that
 - Identifies potential sources of pollution
 - ensures practices are used to reduce pollutants in runoff.

Contractor Controlled Areas

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Maintenance

- Any action taken to keep a BMP in working condition.
 - Not just removing sediment
 - Repairing failures of the BMP itself.

Noncompliance

- Any action or inaction that violates the regulations
 - Permits, Special Provision, Other contract documents.
- Failure of a BMP does not necessarily constitute noncompliance
 - Repaired, replaced or supplemented within timelines.
 - No sediment is discharged.

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Record Keeping

Provide copies to the Engineer of all inspections*, maintenance*, documentation, record keeping, remedial actions, and repairs required by the applicable permits.

*within 3 working days

Permits

Memorandum of Agreement = Contractor will obtain Permit for the project.

Contractor shall obtain appropriate permit coverage for Contractor Controlled Areas.

- Regardless of their size.
- NDDOT will have no responsibility for these areas.

Inspections

Conduct inspections

- every 14 days
- within 24 hrs of rainfall >0.25 inches
- Document

Prolonged rainfall = 2 inspections.

Inspections are required only during normal business hours.

Install a rain gauge

Best Management Practices

Perimeter Controls

- Install prior to site disturbance.
- Do not rely on perimeter BMPs

SWPPP

Develop a SWPPP specific to the project incorporating:

- Plan Sheets
- Contractor's means and methods.

Update the SWPPP to show changes

- Revisions in work schedules or sequence of construction
- BMP locations or types
- etc.

Contractor Responsibilities

SWPPP

Develop a SWPPP specific to the project incorporating:

- Plan Sheets
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Update the SWPPP to show changes

- Revisions in work schedules or sequence of construction
- BMP locations or types
- etc.

Project plan sheets are not a SWPPP
and do not modify the design and
implementation of BMPs to match
means and methods under field
conditions.
• Document changes in the SWPPP
• Meet all regulatory requirements

Project plan sheets are not a SWPPP

Modify the design and implementation of BMPs to match means and methods and/or field conditions.

- Document changes in the SWPPP
- Meet all regulatory requirements.

Best Management Practices

Perimeter Controls

Stabilization BMPs
Install where work has temporarily
or permanently ceased
• Follow the timelines established
in the applicable permits

- Install prior to site disturbance.
- Do not rely on perimeter BMPs

Coordination of BMPs

Coordinate temporary BMPs with the permanent BMPs.
Do not install temporary BMPs until permanent BMPs are installed.

Remove the temporary devices.

Maintenance of the permanent BMPs becomes the
responsibility of the BMPs at permit termination or
transfer.

Stabilization BMPs

Install where work has temporarily or permanently ceased

- follow the timelines established in the applicable permits.

Coordination of BMPs

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Do not install temporary if permanent are able to be installed.

Remove the temporary devices

Maintenance of the permanent BMPs becomes the responsibility of the NDDOT at permit termination or transfer.

Inspections

Conduct inspections

- every 14 days
- within 24 hrs of rainfall >0.25 inches
- Document

Correct any deficiencies within the permit deadline.
If not addressed, 100% of needed or more is added.
Correct the original deficiency as soon as conditions
allow.
Document the conditions that prohibit work.

Prolonged rainfall = 2 inspections.

Inspections are required only during normal business hours.

Install a rain gauge

Correct any deficiencies within the permit timelines.

Install additional BMPs if needed or access prohibited.

Correct the original deficiencies as soon as conditions allow.

Document the conditions that prohibit access.

Record Keeping

Provide copies to the Engineer of
all inspections*,
maintenance*,
documentation,
record keeping,
remedial actions, and
repairs required by the applicable
permits.

Notify Engineer in writing of proposed SWPPP changes.

* Engineer will review the proposed changes and determine if they are adequate.

*within 3 working days

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Erosion Control

Provision

Accountability and Enforcement

Erosion Control Supervisor

- Employee of the Prime Contractor.
- Is familiar with:
 - installation, maintenance and removal of BMPs
 - Requirements of the erosion and sediment control plans, applicable permit requirements, specifications, plans and this provision.
- Is competent to supervise personnel in erosion and sediment control operations.

Duties

- Provide erosion and sediment control.
- Be on the site to supervise.
- Update the SWPPP.
- Propose changes to the SWPPP.
- Be accessible to the job site within 24-hours.
- Provide the Engineer with documentation as required.

PERFORMANCE

Correct all areas of noncompliance within 24 hours after notification of noncompliance. If corrective actions are not taken within 24 hours, the Engineer may:

- Apply a contract price reduction of \$500 per day per instance.
- Have deficiencies corrected by another Contractor.
- Suspend all work.
- Withhold payment on other contract items/pay estimates.

These actions will be applied until deficiencies have been corrected.

Obstacle 2

How does the Contractor and the NDDOT enforce these requirements?

Accountability and Enforcement

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How are w

Obstacle 3

Basis of Payment

Pay Items

Some list items need for temporary and permanent items.

RAP (received) will be paid for at the contract rate price for temporary items.

Include the items for labor, materials, maintenance, equipment, disposal, etc. to the project, and other modifications to the temporary pay items.

Payments for replacing parts

Goal



Basis of Payment

Pay Items

Same bid items used for temporary and permanent BMPs.

BMP removal will be paid for at the contract unit price for "Removal _____".

Include the costs for labor, materials, maintenance, equipment, disposal, adherence to the permit, and SWPPP modifications in the respective pay items.

Payment for replacing BMPs

Replacement of BMPs paid if:

- installed correctly and
- are no longer effective due to normal deterioration

No payment will be made for:

- replacing BMPs that are ineffective because of:
 - improper installation,
 - lack of maintenance, or
 - failure to install permanent BMPs.
- replacing BMPs due to contractor operations.

BMP Specific Payment Items
BMP Removal and Replacement
BMP Installation and Maintenance
BMP Inspection and Testing

Pay Items

Same bid items used for temporary and permanent BMPs.

BMP removal will be paid for at the contract unit price for “Removal _____”.

Include the costs for labor, materials, maintenance, equipment, disposal, adherence to the permit, and SWPPP modifications in the respective pay items.

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- replacing BMPs due to contractor operations.

BMP Specific Payment Issues

The cost to move Flotation Silt Curtain as work progresses should be included in the price bid for “Flotation Silt Curtain”.

Removal of sediment will be paid for at the price listed in the “Price Schedule PS-1.”

No payment for BMPs on Contractor Controlled Areas

Goal

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